WHAT IS CLAIMED IS:

1. An electronic device comprising:

a first insulating film containing silicon and carbon; and

a hole formed in the first insulating film,

the first insulating film having a density varying gradually in a direction of a thickness thereof.

2. The electronic device of claim 1, wherein an uppermost portion of the first insulating film has a density higher than an average density of the first insulating film.

3. The electronic device of claim 2, wherein the density of the uppermost portion is 1.8 g/cm^3 or more and the average density is 1.4 g/cm^3 or less.

4. The electronic device of claim 1, wherein a lowermost portion of the first insulating film has a density higher than an average density of the first insulating film.

5. The electronic device of claim 4, wherein the density of the lowermost portion is 1.8 g/cm^3 or more and the average density is 1.4 g/cm^3 or less.

6. The electronic device of claim 1, further comprising:

a second insulating film formed on the first insulating film, wherein

an average density of the second insulating film is 1.5 g/cm^3 or more and 1.7 g/cm^3 or less.

7. The electronic device of claim 1, further comprising:

a second insulating film formed on the first insulating film, wherein

an abundance ratio of oxygen to silicon each contained in a portion of the second insulating film located adjacent to the first insulating film is less than 2.

8. An electronic device comprising:

a first insulating film containing silicon and carbon; and

a hole formed in the first insulating film,

the first insulating film having a carbon concentration varying gradually in a direction of a thickness thereof.

9. The electronic device of claim 8, wherein an uppermost portion of the first insulating film has a carbon concentration higher than an average carbon concentration of the first insulating film.

10. The electronic device of claim 9, wherein the carbon concentration of the uppermost portion is 30 at% or more and the average carbon concentration is 20 at% or less.

11. The electronic device of claim 8, wherein a lowermost portion of the first insulating film has a carbon concentration higher than an average carbon concentration of the first insulating film.

12. The electronic device of claim 11, wherein the carbon concentration of the lowermost portion is 30 at% or more and the average carbon concentration is 20 at% or less.

13. The electronic device of claim 8, further comprising:

a second insulating film formed on the first insulating film, wherein

an average density of the second insulating film is 1.5 g/cm^3 or more and 1.7 g/cm^3 or less.

14. The electronic device of claim 8, further comprising:

a second insulating film formed on the first insulating film, wherein

an abundance ratio of oxygen to silicon each contained in a portion of the second insulating film adjacent to the first insulating film is less than 2.

15. A method for fabricating an electronic device, the method comprising the steps of:

forming a second insulating film on a first insulating film containing silicon and

carbon;

forming a hole in each of the second and first insulating films;

forming, on the second insulating film formed with the hole, a resist film having an opening corresponding to a specified region including a region formed with the hole; and

etching each of the second and first insulating films by using the resist film as a mask to form a depressed portion connecting to the hole,

the first insulating film having a density varying gradually in a direction of a thickness thereof.

16. The method of claim 15, wherein

the step of forming the second insulating film includes the step of depositing the second insulating film by plasma CVD using at least a silicon supply gas and an oxygen supply gas and

a flow rate of the oxygen supply gas is controlled to be lower at an initial period of the deposition of the second insulating film such that an abundance ratio of oxygen to silicon each contained in a portion of the second insulating film adjacent to the first insulating film is less than 2.

17. The method of claim 15, wherein the step of forming the second insulating film is performed while preventing the first insulating film from being exposed to an atmosphere containing nitrogen.

18. The method of claim 15, wherein the step of forming the second insulating film is performed by spin coating or by thermal CVD.

19. The method of claim 15, further comprising, between the step of forming the hole and the step of forming the resist film, the step of:

forming a dummy plug in the hole.

20. A method for forming an electronic device, the method comprising the steps of:

forming a second insulating film on a first insulating film containing silicon and carbon;

forming a hole in each of the second and first insulating films;

forming, on the second insulating film formed with the hole, a resist film having an opening corresponding to a specified region including a region formed with the hole; and

etching each of the second and first insulating films by using the resist film as a mask to form a depressed portion connecting to the hole,

the first insulating film having a carbon concentration varying gradually in a direction of a thickness thereof.

21. The method of claim 20, wherein

the step of forming the second insulating film includes the step of depositing the second insulating film by plasma CVD using at least a silicon supply gas and an oxygen supply gas and

a flow rate of the oxygen supply gas is controlled to be lower during an initial period of the deposition of the second insulating film such that an abundance ratio of oxygen to silicon each contained in a portion of the second insulating film located adjacent to the first insulating film is less than 2.

22. The method of claim 20, wherein the step of forming the second insulating film is performed while preventing the first insulating film from being exposed to an atmosphere containing nitrogen.

23. The method of claim 20, wherein the step of forming the second insulating film is performed by spin coating or by thermal CVD.

24. The method of claim 20, further comprising, between the step of forming the hole and the step for forming the resist film, the step of:

forming a dummy plug in the hole.